# STATE OF SOUTH CAROLINA BEFORE THE PUBLIC SERVICE COMMISSION DOCKET NO. 2020-176-E

In the Matter of:
Application of Duke Energy
Progress, LLC for Approval of Rider
DSM/EE-12, Decreasing Residential
Rates and Increasing NonResidential Rate
COMMENTS OF SOUTH
CONSERVATION LEAGUE,
SOUTHERN ALLIANCE FOR
CLEAN ENERGY, AND THE SOUTH
CAROLINA STATE CONFERENCE
OF THE NAACP

The South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, and the South Carolina State Conference of the NAACP (collectively, Public Interest Intervenors) welcome the opportunity to submit comments on Duke Energy Progress, LLC's ("DEP" or "the Company") application for approval of its demand-side management ("DSM") and energy efficiency ("EE") rider for 2021 ("Rider 12").

#### **INTRODUCTION**

Public Interest Intervenors continue to support DEP's DSM/EE programs and commend DEP for its role as a regional leader for energy efficiency in the Southeast. These comments aim to provide the Company and the South Carolina Public Service Commission ("Commission") with additional recommendations to build on DEP's programs and achieve deeper energy savings. Although the DSM/EE rider dockets are primarily focused on cost-recovery for the Company, they also provide the only regular avenue for the Commission to observe trends and set direction for program and policy improvements in the Company's portfolio of programs.

Public Interest Intervenors remain committed to strengthening the Company's programs, increasing overall savings, and providing additional opportunities for low-income customers to receive expanded energy-efficiency services, including access to comprehensive efficiency retrofits. To this end, these comments will provide: (1) a high-level review of DEP's DSM/EE portfolio performance in 2019; (2) an overview of DEP's DSM/EE savings forecast for 2021, along with suggestions for how DEP can improve its portfolio and build on the progress made at the Duke Energy Collaborative ("Collaborative"); (3) recommendations to the Commission related to DEP's DSM/EE portfolio and (4) additional recommendations and considerations for DEP's DSM/EE portfolio in light of the COVID-19 pandemic.

#### **REVIEW OF DEP'S 2019 ENERGY SAVINGS PERFORMANCE**

# A. DEP's energy savings levels declined further in 2019, continuing to fall short of a 1% savings level.

In 2019, DEP delivered 353.2 gigawatt-hours ("GWh") of efficiency savings at the meter, corresponding to 0.78% of the prior-year retail sales. This is a decline from 2018, when DEP reported annual savings of .88% of the prior year's retail sales. Though DEP agreed to target a 1% annual savings target in the Duke Energy-Progress Energy merger, DEP has yet to achieve that threshold, and continues to lag considerably behind its sister company Duke Energy Carolinas ("DEC"), which reported a .98% savings level in 2019.

# B. The value of DEP's DSM/EE portfolio continues to significantly exceed its costs.

<sup>&</sup>lt;sup>1</sup> See Duke Energy Progress Response to Justice Center et al. Data Request No. 1-17 (NCUC Docket No. E-2, Sub 1252) (Attached as Exhibit 1).

<sup>&</sup>lt;sup>2</sup> The Merger Settlement with SACE, South Carolina Coastal Conservation League, and Environmental Defense Fund calls for annual energy savings of at least 1% of prior-year retail sales beginning in 2015 and cumulative savings of at least 7% over the period from 2014 through 2018. The Merger Settlement was approved by the Public Service Commission of South Carolina in Docket No. 2011-158-E.

<sup>&</sup>lt;sup>3</sup> Comments of South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, and the South Carolina State Conference of the NAACP, SC PSC Docket No. 2020-83-E at p. 2 (May 22, 2020).

While the cost-effectiveness scores for DEP's portfolio declined for the second year in a row, the value of DEP's DSM/EE portfolio continues to significantly exceed its costs.<sup>4</sup> The Company's programs delivered nearly \$215 million of net present value benefits in 2019, demonstrating that DEP customers realize considerable value from the Company's investment in EE programs.<sup>5</sup>

# C. DEP's energy savings are largely driven by its residential programs, in large part due to commercial and industrial opt-outs.

DEP's residential programs were responsible for approximately 258.6 GWh<sup>6</sup> of energy savings, making up nearly 70% of total savings in 2019. In contrast, non-residential savings declined significantly from past years to 112.7 GWh, or 30.3% of overall savings. In 2018, non-residential savings were 145.5 GWh and in 2017 they were 157.7 GWh—40% higher than DEP reported for 2019.

These persistent declines in non-residential savings are largely a result of commercial and industrial opt outs, which have driven down overall savings and benefits from DEP's DSM/EE portfolio. In 2019, approximately 56% of the non-residential load opted out of DEP's energy efficiency rider. <sup>10</sup> The impact on overall savings is significant; when adjusted to exclude non-residential opt-outs, DEP's 2019 savings as a percentage of sales was 1.14%, compared to 0.78% overall. <sup>11</sup> Because commercial and industrial

<sup>&</sup>lt;sup>4</sup> In 2019, DEP's DSM/EE portfolio had a 2.01 Utility Cost Test and the Total Resource Cost test was 1.71. DEP Amended Exhibit 15, SC PSC Docket No. 2020-176-E (Aug. 25, 2020).

<sup>&</sup>lt;sup>5</sup> Duke Energy Progress Response to Justice Center *et al.* Data Request No. 1-4 (NCUC Docket No. E-2, Sub 1252) (Attached as Exhibit 2).

<sup>&</sup>lt;sup>6</sup> For consistency, unless otherwise specified, energy savings figures are at the generator.

<sup>&</sup>lt;sup>7</sup> Duke Energy Progress Response to Justice Center et al. Data Request No. 1-20 (NCUC Docket No. E-2, Sub 1252) (Attached as Exhibit 3).

<sup>&</sup>lt;sup>8</sup> *Id*.

<sup>&</sup>lt;sup>9</sup> *Id*.

<sup>&</sup>lt;sup>10</sup> Duke Energy Progress Response to Justice Center et al. Data Request No. 1-18 (NCUC Docket No. E-2, Sub 1252) (Attached as Exhibit 4)

<sup>&</sup>lt;sup>11</sup> Ex. 1.

efficiency savings can be among the most economic, greater savings among those customers would likely translate into even higher utility-system cost reductions. While commercial and industrial customers who opt out certify that they have implemented their own DSM/EE measures, there is no requirement to report any resulting savings to the Company or the Commission. This creates uncertainty about what efficiency savings are actually being captured by customers who opt out, which can impact DEP's ability to plan, such as in integrated resource plan proceedings.

# D. DEP's residential portfolio continues to be driven by behavioral and lighting programs, which could compromise future savings growth.

Within DEP's residential portfolio, the largest savings came from My Home Energy Report (MyHER) and large amounts of lighting measures in the Energy Efficient Appliances and Devices program. <sup>12</sup> MyHER alone was responsible for 154.6 GWh in reported savings, making up 41.6% of total savings from just this one program. While such high savings are commendable, heavy reliance on these types of measures can compromise the attainment of future savings, especially in light of changing federal lighting standards. Deeper and longer-lived measures are necessary to maintain a more balanced and robust program that can sustain higher savings levels over time. <sup>13</sup>

# E. Savings from DEP's Neighborhood Energy Saver Program increased modestly this year, but DEP's low income programs underperformed relative to those of DEC.

Across its territory, DEP's low-income programs significantly underperforms when compared with its sister company, DEC. Total savings from DEP's Neighborhood Energy

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<sup>&</sup>lt;sup>12</sup> Ex. 3.

<sup>&</sup>lt;sup>13</sup> See NCUC Docket E-7 Sub 1164, Direct Testimony of Chris Neme on behalf of NC Justice Center, Southern Alliance for Clean Energy, and Natural Resources Defense Council at 7 (May 22, 2018), available at <a href="https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=f0aaa525-8d0d-4628-9696-abee11318da0">https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=f0aaa525-8d0d-4628-9696-abee11318da0</a>.

Saver Program<sup>14</sup> increased modestly from 3.5 GWh in 2018 to 3.7 GWh in 2019, and DEP is forecasting a decline in low-income savings to 3.6 GWh in 2021.<sup>15</sup> In contrast, DEC delivered nearly 9 GWh in low-income savings in 2019, and is forecasting an increase to 9.2 GWh in low-income savings in 2021.

There are several options DEP could take to expand deeper efficiency savings programs for its low-income programs. For instance, DEP could replicate the Income Qualified Weatherization Assistance Program offered by DEC, or develop a modified version of that program patterned off of a successful pilot that DEC offered in the Durham, North Carolina area. <sup>16</sup> As another example, in 2019 DEP launched a Pay for Performance pilot program in North Carolina that includes deeper saving measures;<sup>17</sup> DEP could consider ramping up that program and expanding it to South Carolina. Or, DEP could increase funding and deployment of the deeper efficiency savings measures as part of the Neighborhood Energy Saver program, preferably adding HVAC equipment replacement. These examples are not exhaustive and we would encourage the Company to consider targeted approaches for specific housing types, such as multifamily or manufactured homes, or to explore deploying specific measures like heat pump water heaters. Collaborative members have also discussed the possibility of Duke prioritizing energy efficiency for low-income housing tax credit properties through its existing, non-income qualified efficiency programs.

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<sup>&</sup>lt;sup>14</sup> While this program does not have income qualification eligibility requirements, the neighborhood selection process involves evaluation of US Census data to target communities with high levels of poverty. <sup>15</sup> Ex. 3.

<sup>&</sup>lt;sup>16</sup> See, e.g., NCUC Docket E-7, Sub 1164, *Direct Testimony of Forest Bradley-Wright on Behalf of the North Carolina Justice Center, North Carolina Housing Coalition, and Southern Alliance for Clean Energy*, at pp. 18-20 (Aug. 26, 2020), available at <a href="https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=eabde096-a281-4889-b301-5c3acba0d21c">https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=eabde096-a281-4889-b301-5c3acba0d21c</a>.

<sup>&</sup>lt;sup>17</sup> *Id*. at 19-20.

In any event, we would urge the Commission to send a strong signal that the status quo is not an option. Given the continuing trend of DEP underinvesting in programs targeted to reach its low-income customers, we would ask that the Commission ask more of the Company and require DEP to place a higher priority on increasing low-income customer savings opportunities.

#### ISSUES AND RECOMMENDATIONS FOR DEP'S 2021 SAVINGS FORECAST

## A. DEP's Projected Energy Savings Levels for 2021

DEP forecasts 378.7 GWh of incremental savings at the meter for 2021, which is equivalent to 0.85% of its annual retail sales. <sup>18</sup> This projection represents an increase from the 353.2 GWh of at-the-meter savings DEP reported for 2019, but is a decline from the Company's reported savings in 2018 <sup>19</sup> and still falls short of DEP's commitment to reach 1% annual savings in the Duke-Progress merger proceeding. <sup>20</sup> Despite this commitment, DEP has never forecast or achieved a 1% savings level in any DSM/EE rider docket since the merger proceeding. By contrast, DEC exceeded 1% annual savings in 2017 and 2018, and nearly reached it again in 2019 with .98% savings. <sup>21</sup> Unless DEP increases savings beyond its current forecast, the Company will continue to fall short of the 1% threshold and the higher performance of its sister company.

Both the South Carolina Commission and its counterpart in North Carolina have shown interest in DEP reaching this 1% mark, as have a broad array of clean energy and public interest advocacy groups, including the organizations represented by these

<sup>&</sup>lt;sup>18</sup> Duke Energy Progress Response to Justice Center et al. Data Request No. 1-16 (NCUC Docket No. E-2, Sub 1252) (Attached as Exhibit 5).

<sup>&</sup>lt;sup>19</sup> *Id.* The Company's 2018 savings levels of 0.88% were the highest savings levels it has achieved.

<sup>&</sup>lt;sup>20</sup> Supra note 2

<sup>&</sup>lt;sup>21</sup> Comments of South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, and the South Carolina State Conference of the NAACP, Docket No. 2020-83-E at p. 2 (May 22, 2020).

comments and many others that actively participate in the Collaborative. And a variety of other developments in South Carolina further support a higher energy efficiency savings goal. For example, following up on a recommendation from the 2018 State Energy Plan, <sup>22</sup> South Carolina launched an Energy Efficiency Roadmap process in which a wide variety of state government, utility, industrial, and environmental stakeholders identified key opportunities for increasing energy efficiency savings in South Carolina, including through utility-offered programs. <sup>23</sup> And pursuant to the Energy Freedom Act, this year utilities will be required for the first time to model low, medium, and high cases of DSM/EE in their Integrated Resource Plans and to identify a least cost resource portfolio. It is critical that utility DSM/EE portfolios are given careful consideration, as energy efficiency savings are an important component of utility integrated resource plans, rate cases, and grid modernization efforts.

As such, while Public Interest Intervenors are encouraged that DEP is projecting 2021 savings levels higher than it achieved in 2019, we recommend that the Commission direct the Company to take more concrete action towards meeting a 1% energy savings goal. The fact that DEP has forecasted a decline in low-income savings in 2021 only underscores the need for the Company to improve its energy savings.<sup>24</sup>

#### B. Recommendations to DEP for 2021 DSM/EE Portfolio Implementation

i. Continue to build on improvements at the DEP Collaborative

<sup>&</sup>lt;sup>22</sup> 2018 S.C. State Energy Plan (2018), http://www.energy.sc.gov/files/Energy%20Plan%2003,02,2018.pdf.

<sup>&</sup>lt;sup>23</sup> S.C. State Energy Office, Energy Efficiency Roadmap, <a href="http://energy.sc.gov/node/3466">http://energy.sc.gov/node/3466</a>.

<sup>&</sup>lt;sup>24</sup> Ex. 3.

We would like to commend DEP for its continued willingness to engage with Collaborative participants on new program concepts and strategies for achieving increased energy savings, including its consideration of new technologies, delivery channels, financing mechanisms, as well the Company's efforts to reach underserved customer segments and address underutilization of particular measures. We believe that each of these has an important role to play in reaching higher levels of overall savings, and with the Company's continued efforts, that it could exceed 1% annual energy savings.

In 2019, the Collaborative examined Portfolio Level Opportunities and Challenges, which prominently featured the 1% annual savings goal. That work ultimately evolved into many of the 2020 priorities and program development opportunities the Collaborative is working on now. We believe that a logical and constructive next step would be to focus some of this work on developing a strategic plan for DEP that could bridge the gap between its forecasted annual savings for 2021 and meeting or exceeding 1% annual savings. Such a plan should include recommendations for program modifications and additions along with forecasts for anticipated savings impact and expected cost effectiveness levels. To facilitate completion of such a plan, we recommend that a completion date be set for April 20, 2021 for the first report, and that the Collaborative develop a project schedule to ensure timely discussion, undertake analysis, develop recommendations, and present the final results. And, as discussed further below, we recommend that DEP report back to the Commission on the outcome of these planning efforts.

#### ii. Prioritize deeper savings measures such as heating, cooling, and water heating.

As noted above, DEP's residential portfolio continues to be dominated by lighting and behavioral programs which, while important, are insufficient to ensure a balanced and robust program that can sustain higher savings levels over time. <sup>25</sup> Consequently, we recommend that DEP focus on deeper and longer lived measures to maintain a more balanced and robust program going forward. <sup>26</sup> This is not a suggestion to forego savings currently being captured by DEP's current portfolio. Rather, DEP must place more focus on adding or modifying programs targeting the largest energy end uses – such as heating and cooling and water heating.

#### iii. Further prioritize improving low-income program performance in South Carolina.

Public Interest Intervenors continue to stress the importance of providing energy and bill savings for DEP's low-income customers. More efforts should be targeted at these customers, who have the highest energy burdens (the highest percentage of income spent on residential energy bills), and consequently, the most need for cost-saving energy-efficiency programs. We appreciate the increased strides made over the last year and continued engagement on this question at the Collaborative, including the Company's consideration of new delivery mechanisms in South Carolina. However, as discussed above, the performance of DEP's income-qualified programs in South Carolina continues to be an area of serious concern, and we strongly suggest that DEP undertake immediate efforts to examine and improve its program performance in 2021.

## RECOMMENDATIONS FOR THE COMMISSION

A. Require that DEP develop a plan for achieving the 1% savings target and report to the Commission regarding any projected declines in portfolio energy savings and steps taken to reverse such declines.

<sup>&</sup>lt;sup>25</sup> *Supra* note 13 at 27-36.

 $<sup>^{26}</sup>$  *Id*.

In its filing, DEP provides little indication of the steps it is or could be taking to meet or achieve a 1% energy savings goal. Given the interest stakeholders and the Commission have shown for increasing savings levels going forward, at a minimum DEP should be required to include in its annual filings a structured approach for the steps it will take to reverse any projected declines and at least match savings levels that it has previously achieved. As such, we recommend that the Commission require the Company to include such an explanation in annual DSM/EE filings moving forward.

# B. Require that DEP report back to the Commission with concrete plans regarding the priority items discussed at the Collaborative or other key outputs.

A more structured means of exchanging information between the Commission and the Collaborative would be of significant benefit to all parties. The Collaborative's efforts have yielded data and information that could further support the Commission in its decision-making; conversely, we believe that the Commission should have a role in informing the issues the Collaborative addresses and how those discussions should feed back to the Commission.

As one example, last year the Company presented a prototype visual "dashboard" that compared projections to reported values for expenditures, savings, and participation, by program as well as at the portfolio level. The dashboard allowed one to quickly understand, for the most recent four years of program implementation, how the program achievements in those categories compared with the Company's projections at the outset of each program year. A sample from the Company's presentation, for the Multifamily Program, is provided below in Figure 1. The full presentation is attached as Exhibit 6.

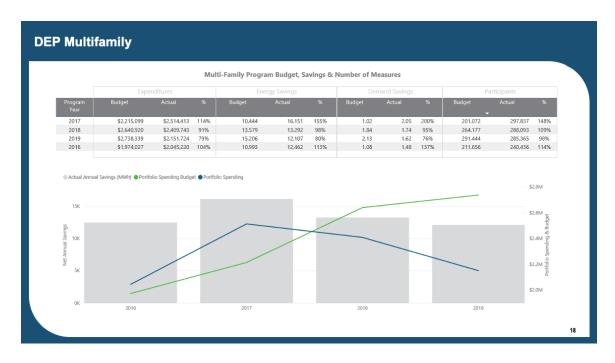


Figure 1: DEP "Dashboard" for Multifamily Program

The dashboard shows program performance at a glance, and importantly also shows trends in budgets, actual costs, and savings. Prior to the development of this dashboard, drawing year-over-year comparisons would have required manually tracking down the data in four different reports and assembling it to provide a year-by-year comparison. The prototype dashboard is a vast improvement, and as Duke has asked members of the Collaborative for feedback on the prototype, it is expected that it will continue to be refined through these Collaborative discussions. This is one example of the type of information coming from the Collaborative that could prove highly beneficial for the Commission to review and analyze, and if made available in DEP's annual DSM/EE filings, could streamline the discovery process for all parties.

We further recommend that the Commission inform the work done by the Collaborative by directing that: (1) DEP prioritize certain issues, particularly its South Carolina low-income programs, at the Collaborative; and (2) develop and report its plans

for addressing its overall savings levels and its low-income program savings in its 2021 DSM/EE filing. This type of structured exchange of information between the Commission and the Collaborative would help to facilitate an iterative process where the Collaborative could adapt its priorities over time based on those identified by the Commission, and vice versa.

C. Require that DEP increase energy savings for its low-income energy efficiency programs and report to the Commission its plan for continuing to do so in its 2021 DSM/EE rider filing.

As stated earlier, we believe DEP should further prioritize its low-income programs in South Carolina. To that end, we recommend that the Commission require DEP to demonstrate higher energy savings from its low-income program in its DSM/EE rider filing in 2021. We also recommend that the Commission require DEP to further prioritize this issue at the Collaborative and file with the Commission a plan for how it will increase energy savings associated with these programs in its 2021 portfolio.

## ADDITIONAL RECOMMENDATIONS IN LIGHT OF COVID-19

The COVID-19 pandemic has profound near term implications for energy efficiency delivery that may extend for several years or more. These include both major programmatic disruption and a significant expansion of customer need. To protect energy efficiency worker and customer health and prevent potentially significant declines in overall efficiency portfolio savings, adaptations to energy efficiency policies and program operations will be needed. This March, many utilities temporarily halted or altered energy efficiency programs to curtail in-person contact and, where feasible, offer programs remotely. Even after social distancing requirements ease, however, ongoing adaptations may be needed in how programs are designed and implemented.

To date, DEP has not developed an overarching plan to adapt its energy efficiency approach for the COVID-19 era. In response to a data request on this topic, <sup>27</sup> DEP stated that it is "not planning on broad or significant changes to offerings, incentive levels or delivery channels solely based on the pandemic." The Company also has not targeted its programs to COVID-19 impacted customer segments or those who have accrued unpaid electric bills. While the Collaborative has begun to discuss the intersection between COVID-19 and DEP's energy efficiency programs, those conversations are at a very early stage.

Accordingly, we recommend that the Company comprehensively evaluate potential adaptations to its energy efficiency programs in light of the pandemic, such as by expanding its use of virtual audits and online marketplaces, prioritizing residential programs to replace equipment like heat pumps or HVAC units, or targeting large unoccupied or reduced occupancy schools and office buildings for major efficiency upgrade projects.<sup>28</sup> These are just a few examples that should be considered as part of a comprehensive review of possible program modifications in response to the pandemic.

Further, we recommend that the Company significantly expand EE programs aimed at assisting vulnerable populations and financially struggling families who are being harmed by the economic turmoil of the pandemic, including widespread job loss. Recognizing the painful and financially untenable situation this has created for large

<sup>&</sup>lt;sup>27</sup> Duke Energy Progress Response to Justice Center *et al.* Data Request No. 1-27 (NCUC Docket No. E-2, Sub 1252) (Attached as Exhibit 7).

<sup>&</sup>lt;sup>28</sup> These examples are gathered from recommendations by the American Council for an Energy Efficient Economy ("ACEEE") and other leading energy efficiency organizations. A recent ACEEE article also provides eight steps a utility can take to retool its energy efficiency programs during the pandemic. Dan York, "8 ways efficiency programs can retool during the crisis and plan for a strong recovery," ACEEE (June 18, 2020), available at:

 $<sup>\</sup>underline{https://www.aceee.org/blog-post/2020/06/8-ways-efficiency-programs-can-retool-during-crisis-and planstrong-recovery.}$ 

numbers of customers, DEP temporarily halted disconnections for non-payment. But for the more than 450,000 families that DEP serves who were already struggling economically<sup>29</sup> before the pandemic, the added financial stresses and uncertainty of the job market caused by the pandemic create a looming crisis that warrants urgent action to help customers reduce bills, especially now that the temporary moratorium on disconnections is ending and customers are being required to pay past due balances or enter into repayment plans.

Consistent with our general recommendations above, we therefore recommend that DEP and the Commission consider a significant expansion of funding for efficiency programs that substantially reduce energy use and customer bills for low-income customers. One possible approach would be to adapt and expand upon the methods developed by DEC last year in its Income-Qualified Weatherization pilot to proactively reach out to low- and moderate-income customers with high energy intensity across its service territory, as well as customers with accumulated past due bills. This deep energy saving program could significantly improve the financial wellbeing of these families, while potentially making the difference between customers successfully repaying past due bills or forcing the utility to write them off as uncollectable, at which point the unpaid costs are passed on to other ratepayers.

We further recommend that the Commission state its support for deploying targeted energy efficiency programs to help customers mitigate the impact of COVID-19 and direct DEP to submit a specific plan by no later than thirty days after the

<sup>&</sup>lt;sup>29</sup> Estimate of DEP residential customers at or below 200% Federal Poverty Guidelines using customer counts from EIA Form 861 and poverty ratios from U.S. Census Bureau American Community Survey (ACS) Table S1701, Poverty Status in the Past 12 Months for North and South Carolina.

Commission's Order in this docket that includes proposed modified program budgets, savings goals, and customer targeting strategies – with a particular emphasis placed on customers who are at risk of disconnection, such as those who have accrued unpaid electric bills as well as those who are elderly, disabled, have high energy burdens, and who have lost their employment as a result of the pandemic. If DEP is aware of regulatory obstacles that may need to be addressed to proceed with its plan, the Company should identify them and indicate what additional benefit to customers could be indicated if corresponding regulatory action is taken.

#### CONCLUSION

In conclusion, SACE, CCL, and the South Carolina State Conference of the NAACP support DEP's request for approval of Rider 12, but request that the Commission require DEP to: (1) improve on its low-income program savings in 2021; (2) develop a plan to meet a 1% savings level and submit that plan to the Commission in its 2021 DSM/EE rider filing; and (3) direct that DEP further address low-income programs through the Collaborative and report back to the Commission with plans on how it will address concerns in that area. We further request that the Commission consider actions DEP should take with respect to its DSM/EE portfolio in light of the COVID-19 pandemic.

Respectfully submitted this 15th day of October, 2020.

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# EXHIBIT 1

Exhibit 1

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
Item No. 1-17
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## **DUKE ENERGY PROGRESS, LLC**

## **Request**:

Please provide a calculation of cumulative DSM/EE portfolio savings with and without line loss (1) as a percentage of total annual sales; and (2) as a percentage of annual sales to non-opt-out customers from 2014 through 2019.

#### Response:

Please refer to "CCL-SACE DR1-17.xlsx."



#### **Duke Energy Progress**

SACE DR 1-17	At Generator	At Meter	2014 Res LL 4.23% 2014 Non-Res LL 4.09% 2015-2019 LL 5.10%	
2014 Incremental Energy Savings	291,031,950	278,927,402	kWh	Docket E-2 Sub 1145 Exh 1 pg. 1
2014 Opt Out Electricity Sales - NC	11,300,733,172	10,838,533,185	kWh	workpapers
2014 Opt Out Electricity Sales - SC	2,794,534,233	2,680,237,783	kWh	workpapers
2013 System Retail Billed Electricity Sales	44,997,669	43,132,132	MWh	2013 RAC Report
2015 Incremental Energy Savings	325,816,928	310,006,592	kWh	Docket E-2 Sub 1174 Ehx 1 pg. 1
2015 Opt Out Electricity Sales - NC	11,538,253,881	10,978,357,641	kWh	Miller Exhibit 6
2015 Opt Out Electricity Sales - SC	2,852,954,257	2,714,514,041	kWh	Exhibit 3 pg 1 of 2
2014 System Retail Billed Electricity Sales	46,268,370	44,023,187	MWh	2014 RAC Report
2016 Incremental Energy Savings	339,917,574	323,423,001	kWh	Docket E-2 Sub 1206 Exh 1 pg. 1
2016 Opt Out Electricity Sales - NC	11,788,785,866	11,216,732,508	kWh	Miller Exhibit 6
2016 Opt Out Electricity Sales - SC	2,870,425,716	2,731,137,694	kWh	Exhibit 3 pg 1 of 2
2015 System Retail Billed Electricity Sales	46,114,059	43,876,365	MWh	2015 RAC Report
2017 Incremental Energy Savings	378,262,008	359,906,764	kWh	Docket E-2 Sub 1206 Exh 1 pg. 3
2017 Opt Out Electricity Sales - NC	12,046,836,667	11,462,261,339	kWh	Miller Exhibit 6
2017 Opt Out Electricity Sales - SC	2,863,405,551	2,724,458,184	kWh	Exhibit 3 pg 1 of 2
2016 System Retail Billed Electricity Sales	45,819,130	43,595,747	MWh	2016 RAC report
2018 Incremental Energy Savings	399,097,704	379,731,403	kWh	Docket E-2 Sub 1252 Exh 1 pg. 1
2018 Opt Out Electricity Sales - NC	12,347,900,784	11,748,716,255	kWh	Miller Exh 6, Line 10
2018 Opt Out Electricity Sales - SC	2,957,330,614	2,813,825,513	kWh	Exhibit 3 pg 1 of 2, Line 14
2017 System Retail Billed Electricity Sales	45,248,506	43,052,813	MWh	2017 RAC Report
2019 Incremental Energy Savings	371,219,630	353,206,118	kWh	Docket E-2 Sub 1252 Exh 1 pg. 5
2019 Opt Out Electricity Sales - NC	12,028,707,060	11,445,011,475	kWh	Miller Exh 6, Line 10
2019 Opt Out Electricity Sales - SC	2,863,405,551	2,724,458,184	kWh	Exhibit 3 pg 1 of 2, Line 14
2018 System Retail Billed Electricity Sales	47,498,781	45,193,892	MWh	2018 RAC Report

17. Please provide a calculation of cumulative DSM/EE portfolio savings (1) as a percentage of total annual sales; and (2) as a percentage of annual sales to non-opt-out customers from 2014 through 2019, with and without adjustment for line loss.

2014 Incremental Energy Savings 2013 System Retail Electricity Sales 2013 System Retail Electricity Sales, net of 2014 Opt Out	291,031.95 MWh 44,997,669 MWh 30,902,402
Savings as % of 2013 Sales	0.65%
Savings as % of 2013 Sales, net of 2014 Opt Out	0.94%
2015 Incremental Energy Savings	325,816.93 MWh
2014 System Retail Electricity Sales	46,268,370 MWh
2014 System Retail Electricity Sales, net of 2015 Opt Out	31,877,161
Savings as % of 2014 Sales	0.70%
Savings as % of 2014 Sales, net of 2015 Opt Out	1.02%
2016 Incremental Energy Savings	339,917.57 MWh
2015 System Retail Electricity Sales	46,114,059 MWh
2015 System Retail Electricity Sales, net of 2016 Opt Out	31,454,848
Savings as % of 2015 Sales	0.74%
Savings as % of 2015 Sales, net of 2016 Opt Out	1.08%

# EXHIBIT 2

Exhibit 2

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
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## **DUKE ENERGY PROGRESS, LLC**

#### **Request**:

For each program in DEP's DSM/EE portfolio, please provide:

- a. UCT and TRC cost-effectiveness test scores with corresponding total costs and benefits for 2015, 2016, 2017, 2018, and 2019, including:
  - i. A detailed explanation of the inputs and calculation methods used for UCT and TRC
  - ii. An illustrative example showing how the calculations are done using a common efficient HVAC measure.
- b. The projected cost effectiveness scores for each program in the 2020 and 2021 forecasts;
- c. The measures and programs offered in 2017, 2018, and 2019 that were removed because there were deemed no longer cost effective for 2020 and 2021;
- d. Measures and programs that have UCT and/or TRC cost effectiveness score between 0.85 and 0.99 that were not included in DEP's 2020 and 2021 portfolios along with their respective cost effectiveness scores and projected kW and kWh savings impact that would have been expected if they had been included.

#### **Response**:

Please refer to "SACE DR 1-4 a and b.xlsx" and "SACE DR 1-4 c and d.docx."



SACE%20DR%201-4 %20a%20and%20b.xl



SACE%20DR%201-4 %20c%20and%20d.dc

#### CCL-SACE DR1-4

1-4.For each program in DEP's DSM/EE portfolio, please provide:
a.UCT and TRC cost-effectiveness test scores with corresponding total costs and benefits for 2015, 2016, 2017, 2018, and 2019, including:
1.A detailed explanation of the inpulsa and calculation methods used for UCT and TRC
II.An illustrative example showing how the calculations are done using a common efficient HVAC measure.
b. The projected cost effectiveness exerce for each program in the 2020 and 2021 forecasts;

Note: Minor variances in Total Portfolio NPV of AC and Program Costs due to rounding

		20:	15					2016					2017					2018						2019					2020				2021		
																													NPV	v				NPV	
		Par	rticipant NPV Pa	rticipant				Participant Ni	V Participant				Participant	NPV Participant				Participant	NPV Participant					Participant N	PV Participant			Pa	rticipant Particip	pant			Participant	Participant	
a/b	NPV of AC Progra	ram Cost Inc	centives Costs	s (net) UC	T TRC	NPV of AC	Program Cost	Incentives	Costs (net)	UCT TRC	NPV of AC	Program Cost	Incentives	Costs (net)	UCT TRC	NPV of AC	Program Cost	Incentives	Costs (net)	UCT TRC		NPV of AC	Program Cost	Incentives	Costs (net)	UCT TRC	NPV of AC Pr	ogram Cost Ir	centives Costs (r	(net) UCT	TRC	NPV of AC Program	Cost Incentives	Costs (net)	UCT TRC
Appliance Recycling Program	1,508,567 1,	,220,465	486,368	-	1.24 2.05	76,177	(129,701)	(50,266)	-	-0.59 -0.9	6 -	5,339	-	-	0.00 0.00		-	-	-	-		-	-	-	-		-	-	-	-		-		-	
Appliances and Devices	-	-	-	-		-	-	-	-		-	-	-	-			-	-	-	-		10,832,320	2,160,799	1,099,624	1,371,641	5.01 4.45	13,327,506	913,406	677,462 629,		.59 15.40	13,099,464 1,552	,345 946,542	2 687,571	8.44 10.13
Energy Education Program for Schools		703,689	232,771	-	2.24 3.35	1,693,087	783,357	213,524	-	2.16 2.9	7 1,376,442	799,072	216,906	-	1.72 2.36	1,365,9	18 676,815		-	2.02 2.81		1,039,694	747,483	186,360	200,113	1.39 1.37	1,213,998	900,402			.35 1.38		,933 280,177		1.37 1.39
EnergyWise Home	32,027,042 3,	,205,545	4,140,396	-	6.27 30.62	70,854,171	6,887,758	5,487,905	-	10.29 50.6	2 62,410,503	6,502,032	6,094,495	-	9.60 153.14	56,020,2	97 5,817,271	5,179,747	-	9.63 87.87	87	53,221,850	5,806,874	5,617,524	-	9.17 281.08	42,915,886	8,148,740	5,454,030	- 5.	.27 15.93	13,517,088 6,906	,770 4,588,239	9 -	1.96 5.83
Home Energy Improvement		,298,232	3,923,669 6,	312,662	1.29 0.89	6,991,688	5,692,422	4,298,396	9,582,983	1.23 0.6	4 6,313,442	6,654,031	5,151,334	11,690,091	0.95 0.48		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	-
Neighborhood Energy Saver		,586,061	938,050	-	0.72 1.75	1,167,680	1,943,051	1,203,816	-	0.60 1.5	8 1,117,743	1,702,549	1,177,799	-	0.66 2.13	1,835,8	57 1,845,739	1,264,146	-	0.99 3.16	16	1,438,897	1,671,298	1,095,666	1,174,420	0.86 0.82	933,642	1,888,543	1,312,894 1,312,	2,750 0.	.49 0.49	1,834,467 2,102	,637 1,727,124	4 1,674,021	0.87 0.90
Multi-Family Energy Efficiency Program	9,816,135 2,	,615,745	995,800	-	3.75 6.06	7,155,924	1,936,126	697,690	-	3.70 5.7	8 10,163,052	2,403,372	961,410	-	4.23 7.05	8,187,4	22 2,409,743	768,609	-	3.40 4.99	99	6,131,940	2,156,484	567,005	640,104	2.84 2.75	7,175,347	2,710,531	703,594 696,		.65 2.65	7,060,550 2,673	,548 746,801	1 734,182	2.64 2.65
My Home Energy Report	5,791,217 5,	,808,941	-	-	1.00 1.00	7,524,461	5,575,910	-	-	1.35 1.3	5 6,972,509	6,454,921	-	-	1.08 1.08	9,837,5	10 7,687,891	-	-	1.28 1.28	28	11,676,738	6,299,307	-	-	1.85 1.85	6,414,470	6,349,938	-		.01 1.01	11,325,840 7,016		-	1.61 1.61
Residential Energy Assessments	-	-	-	-		4,853,362	1,342,291	202,452	-	3.62 4.2	6 5,512,365	1,781,190	213,628	12,908	3.09 3.49	5,362,2	64 1,851,965	242,814	10,940	2.90 3.31	31	4,344,111	2,113,798	168,539	189,464	2.06 2.03	3,860,896	1,792,502	162,192 135,	5,253 2.	.15 2.19		,085 343,145	5 473,797	2.03 1.96
Residential New Construction	12,081,218 7,	,447,258	6,222,820 8,	483,795	1.62 1.24	19,280,066	8,903,911	7,975,698	12,942,488	2.17 1.3	9 21,481,837	11,156,278	9,654,017	15,834,693	1.93 1.24	22,730,5	32 13,189,949	11,169,768	9,823,602	1.72 1.92	92	19,396,567	15,113,951	12,656,251	11,233,867	1.28 1.42	18,677,081	2,060,743	0,367,731 2,096,	5,611 1.	.55 4.93	19,911,473 15,182	,173 13,448,496	5 12,650,072	1.31 1.38
Energy Efficient Lighting	47,462,180 16,	,392,094 1	3,864,906 7,	185,615	2.90 4.89	44,883,085	16,511,512	14,347,450	6,858,992	2.72 4.9	7 39,549,493	11,689,156	10,354,220	7,648,783	3.38 4.40	33,699,0	94 9,815,496	7,837,838	-	3.43 17.04	04	35,415,049	13,447,031	11,329,673	7,252,374	2.63 3.78	9,514,559	4,732,539	3,515,957 2,304,	4,340 2.0	.01 2.70	7,651,434 3,850	,337 3,225,136	5 1,957,577	1.99 2.96
Save Energy and Water Kit		-	-	-		13,873,513	638,558	371,460	-	21.73 51.9	4 17,187,186	849,614	622,934	-	20.23 75.82	10,188,6	60 825,279	408,963	-	12.35 24.47	47	-	-	-	-	-	-	-	-	-	-	-		-	
Residential Service - Smart\$aver	-	-	-	-		-	-	-	-		-	-	-	-		6,288,3	14 7,168,833	5,595,885	9,077,791	0.88 0.59	59	5,417,341	6,411,758	4,338,824	6,539,280	0.84 0.63	5,047,920	3,148,287	2,771,000 4,807,	7,992 1.	.60 0.97	2,764,092 4,842	,705 2,909,158	5,023,872	0.57 0.40
Low Income Weatherization Pilot																		-	-			75,533	27,356	19,092	-	2.76 9.14	-	-	-	-	-	-		-	
Energy Efficiency for Business	29,902,372 6,	,226,453	4,716,736 2,	217,521	4.80 8.02	47,824,935	13,404,039	11,208,315	28,768,577	3.57 1.5	4 77,891,372	20,789,293	18,402,384	51,782,736	3.75 1.44		-	-	-			-	-	-	-			-	-	-	-			-	-
Business Energy Report		74,374	-	-	0.00 0.00	309,365	65,808	-	-	4.70 4.7	0 737	19,432	-	-	0.04 0.04		-	-	-	-		-	-	-	-	-	-	-	-	-	-	-		-	
Non-Res SmartSaver Performance	-	-	-	-		-	24,482	-	-	0.00 0.0	0 335,899	140,661	46,706	209,151	2.39 1.11	808,7	78 201,559	138,274	646,499	4.01 1.14	14	606,333	267,186	129,784	482,944	2.27 0.98	3,692,143	912,376	691,603 3,506,	5,083 4.0	.05 0.99	1,721,451 608	,576 392,157	7 1,358,245	2.83 1.09
Commercial, Industrial, & Governmental Demand Response	1,025,439	569,444	529,549	-	1.80 25.70	(10,684,733)	-	-	-		3,551,967	1,393,650	1,269,200	-	2.55 28.54	2,124,6	92 1,154,642	1,187,855	-	1.84 (63.97	97)	4,394,068	1,811,347	1,242,733	-	2.43 7.73	11,315,319	6,148,693	5,745,056	- 1.3	.84 28.03	4,596,557 2,590	,719 2,435,930		1.77 29.70
EnergyWise for Business		65,456	-	-	0.00 0.00	164,697	1,053,456	46,835	-	0.16 0.1	6 858,655	1,329,140	-	-	0.65 0.65	(505,9	38) 2,108,030	629,260	-	(0.24) (0.34	34)	540,478	2,412,880	1,005,890	-	0.22 0.38	826,038	3,062,633	1,255,184	- 0.	.27 0.46	941,042 3,446	,547 1,724,705	5 75,666	0.27 0.52
Small Business Energy Saver	25,239,036 9,	,780,196	8,975,182 12,	857,392	2.58 1.85	32,988,897	8,838,269	8,173,844	13,318,382	3.73 2.3	6 26,945,514	8,383,422	7,733,531	12,633,064	3.21 2.03	22,297,9	05 8,858,213	7,857,678	11,929,015	2.52 1.72	72	16,064,477	7,301,790	6,380,717	10,258,377	2.20 1.44	19,156,040	7,634,059	7,006,137 11,748,	8,292 2.5	.51 1.55	14,886,828 7,420	,102 6,756,705	5 11,361,733	2.01 1.24
Non-Residential Smart \$aver Prescriptive		-				-	-				-	-	-	-		65,186,9	82 11,515,913	9,131,886	23,055,883	5.66 2.56	56	34,686,216	7,877,838	5,763,360	12,264,290	4.40 2.41	38,000,115	10,434,481	7,549,297 17,041,	1,685 3.	.64 1.91	39,254,442 11,648	,055 8,726,018	8 20,761,927	3.37 1.66
Non-Residential Smart Şaver Custom		-				-	-				-	-	-	-		8,889,9	04 2,174,163	1,111,868	4,935,057	4.09 1.48	48	9,658,177	2,776,482	1,580,493	4,849,778	3.48 1.60	10,348,052	3,972,088	2,256,731 7,098,	8,008 2.	.61 1.17	10,047,403 3,932	,557 2,301,091	1 7,130,008	2.55 1.15
Total Portfolio	175,013,463 62,	,993,952 4	5,026,245 37,	056,984	2.78 3.18	248,956,375	73,471,249	54,177,117	71,471,423	3.39 2.7	4 281,668,716	82,053,151	61,898,563	99,811,427	3.43 2.35	254,318,1	92 77,301,500	52,715,794	59,478,787	3.29 3.03	03	214,939,790	78,403,665	53,181,535	56,456,650	2.74 2.63	192,419,012	4,809,960	9,722,463 51,613,	3,125 2.5	.57 2.51	157,535,145 78,485	,496 50,551,423	64,153,584	2.01 1.71

UCT is the sum of the net present value of avoided capacity, energy and T&D divided by total program costs TRC is the sum of the net present value of avoided capacity, energy and T&D divided by the sum of total program costs See the LUCT and TRC columns for part a for the formulas used to calculate the UCT and TRC scores.

Example of HVAC Messure:
NVP Avoided Crapacty = 538
NVP Avoided Crapacty = 537
Total RVP Avoided Cost = 5333
Program Cost = 527
Participant Cost = 5275
Participant Cost = 5275
TRC = \$333/(\$270 > 5250 > 5252) = 0.61

# EXHIBIT 3

Exhibit 3

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
Item No. 1-20
Page 1 of 1

## **DUKE ENERGY PROGRESS, LLC**

## Request:

Please provide a spreadsheet of total energy savings achieved by each of the Company's DSM/EE programs, in GWh, for 2017, 2018 and 2019.

## Response:

Please see attached file "SACE DR 1-20" for spreadsheet of total energy savings in year requested.



SACE DR 1-20
1-20. Please provide a spreadsheet of total energy savings achieved by each of the Company's DSM/EE programs, in GWh, for 2017, 2018 and 2019

Residential Programs	2017 System Energy Reduction (GWh)	2018 System Energy Reduction (GWh)	2019 System Energy Reduction (GWh)
EE Programs			
1 Appliance Recycling Program	-	-	-
2 Appliances and Devices	-	-	20.46
3 Energy Education Program for Schools	2.35	2.56	3.28
4 Energy Efficient Lighting	29.68	25.64	33.35
5 Residential Service – Smart \$aver	7.36	7.23	6.76
6 Low Income Weatherization Pilot	-	-	0.13
7 Multi-Family Energy Efficiency	16.15	13.29	12.11
8 Neighborhood Energy Saver	2.20	3.54	3.70
9 Residential Energy Assessments	7.73	7.75	7.83
10 Residential New Construction	12.25	14.26	16.34
11 Save Energy and Water Kit	25.02	15.25	
12 Total for Residential Conservation Programs	102.74	89.53	103.96
13 My Home Energy Report (1)	117.85	164.07	154.60
14 Total Residential Conservation and Behavioral Programs	220.59	253.60	258.56
15 EnergyWise	<u></u>	<u> </u>	<u>-</u>
16 Total Residential	220.59	253.60	258.56
	2017 System Energy Reduction (GWh)	2018 System Energy Reduction (GWh)	2019 System Energy Reduction (GWh)

Exhibit 3

# **Non-Residential Programs**

**EE Programs** 

17 Business Energy Report	-	-	-
18 Energy Efficient Lighting	7.87	6.76	8.78
19 Energy Efficiency for Business	103.37	-	-
20 Non-Residential Smart \$aver - Prescriptive	-	84.98	54.59
21 Non-Residential Smart \$aver Custom	-	11.90	13.13
22 Non-Residential Smart \$aver Performance Incentive	0.44	1.52	1.36
23 Small Business Energy Saver	45.01	40.30	34.74
24 Total for Non-Residential Conservation Programs	156.68	145.46	112.60
25 EnergyWise for Business	0.98	0.04	0.06
26 Commercial, Industrial, & Governmental Demand Response	-	-	-
27 Total for Non-Residential DSM Programs	0.98	0.04	0.06
28 Total Non Residential	157.67	145.50	112.66
29 Total All Programs	378.26	399.10	371.22
30 DSDR	35.52	47.82	38.08
31 Total with DSDR	413.78	446.91	409.30

<sup>(1)</sup> My Home Energy Report impacts reflect cumulative capability as of end of vintage year

<sup>(2)</sup> Total System DSM programs allocated to Residential and Non-Residential based on contribution to retail system peak

# EXHIBIT 4

Exhibit 4

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
Item No. 1-18
Page 1 of 1

## **DUKE ENERGY PROGRESS, LLC**

#### **Request**:

For the years 2019, 2020 (forecasted), and 2021 (forecasted), please identify the following:

- a. Total DSM non-residential opt-outs;
- b. Total EE non-residential opt outs; and
- c. Total non-residential sales.

#### **Response**:

DEP does not forecast future opt-outs. Actual 2018 opt-outs are used as a proxy for estimating projected 2020 opt-outs. Actual 2019 opt-outs are used as a proxy for estimating projected 2021 opt-outs. Docket E-2 Sub 1252 Listebarger Exhibit 6 provides actual 2019 and projected 2021 opt outs and actual 2019 and forecasted 2021 sales. Docket No. E-2 Sub 1206 Miller Exhibit 6 provides projected 2020 opt outs and 2020 forecasted sales.

#### To summarize:

#### 2019:

Non-residential DSM opt outs 12,105,104,831 Non-residential EE opt outs 12,036,461,522 Non-residential sales 21,573,532,827

#### 2020 (projected Docket E-2 Sub 1206):

Non-residential DSM opt outs Non-residential EE opt outs Non-residential sales 11,850,797,144 11,748,716,255 21,405,950,172

#### 2021 (projected Docket E-2 Sub 1252):

Non-residential DSM opt outs 12,105,104,831 Non-residential EE opt outs 12,036,461,522 Non-residential sales 21,169,125,507

# EXHIBIT 5

Exhibit 5

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
Item No. 1-16
Page 1 of 1

## **DUKE ENERGY PROGRESS, LLC**

#### **Request**:

Please provide a calculation of DSM/EE portfolio savings with and without line loss (1) as a percentage of total annual sales; and (2) as a percentage of annual sales to non-opt-out customers:

- a. For the year 2019 (as a percentage of 2018 retail sales); and
- b. Forecasted for the year 2021 (as a result of forecasted 2020 sales).

### Response:

Please refer to "CCL-SACE DR1-16.xlsx."



#### **Duke Energy Progress**

#### CCL\_SACE DR 1-16

	At Generator	At Meter	
2019 Incremental Energy Savings	371,219,630	353,206,118 kWh	Evans Exhibit 1 page 3 (2019) line 28 - adjusted for line
2019 Opt Out Electricity Sales - NC	12,028,707,060	11,445,011,475 kWh	E-2, Sub 1174 Miller Exh 6, Line 5
2019 Opt Out Electricity Sales - SC	2,863,405,551	2,724,458,184 kWh	Miller Exh 6, Line 5
2018 System Retail Billed Electricity Sales	47,498,781	45,193,892 MWh	2018 Revenue Support
2021 Incremental Energy Savings	398,000,553	378,687,491 kWh	Evans Exhibit 1 page 5 (2021) line 27 - adjusted for line
2021 Incremental Energy Savings  2021 Opt Out Electricity Sales - NC	12,650,321,060	12,036,461,522 kWh	Miller Exh 6, Line 5
2021 Opt Out Electricity Sales - SC	2,924,760,848	2,782,836,202 kWh	Listebarger Exh 6, Line 5
2020 System Retail Electricity Sales	46,771,544	44,501,945 MWh	2019 Spring Forecast, used for collections in 2020

16a. Please provide a calculation of DSM/EE portfolio savings with and without line loss (1) as a percentage of total annual sales; and (2) as a percentage of annual sales to non-opt-out customers:

a. for the year 2019 (as a percentage of 2018 retail sales);

2019 Incremental Energy Savings	353,206.12	MWh
2018 System Retail Electricity Sales	45,193,892	MWh
Savings as % of 2018 Sales	0.78%	
		-
2019 Incremental Energy Savings	353,206.12	MWh
2018 System Retail Electricity Sales, net of 2019 Opt Out	31,024,423	MWh
Savings as % of 2018 Sales, net of 2019 Opt Out	1.14%	

16b. Please provide a calculation of DSM/EE portfolio savings with and without line loss (1) as a percentage of total annual sales; and (2) as a percentage of annual sales to non-opt-out customers:

b. forecasted for the year 2021 (as a result of forecasted 2020 sales).

2021 Incremental Energy Savings378,687.49MWh2020 System Retail Electricity Sales44,501,945MWhSavings as % of 2020 Sales0.85%



March 19, 2020





**Program Year End Updates** 

2019



## **Portfolio Summary: DEC**

### **2019 Portfolio Summary**

Demand (MW) Actual	Energy (MWh)	Actual Expenditures	Performance Incentives	Total Annual Energy Sales	% of Energy Sales	UCT Score	TRC Score
1,103.00	844,287	\$150,420,388	\$33,457,516	49,620,203	2%	2.91	2.69

### **Company Statistics**

#### Prior Year & YTD Revenues & Expenditures

		Budge	t	Actual	
Program Year	Total Revenue (\$MM)	Portfolio Budget	% of Revenue	Portfolio Spending	% of Revenue
2016	\$7,322	\$123,781,349	1.7%	\$151,574,107	2.1%
2017	\$7,302	\$130,617,734	1.8%	\$192,488,915	2.6%
2018	\$7,300	\$141,778,571	1.9%	\$159,005,671	2.2%
2019	\$7,395	\$144,837,499	2.0%	\$150,420,388	2.0%

#### Energy

		Budg	et	Acti	ual 🤄
Program Year	Prior Yr Annual Energy Sales (Net of Opt-Out)	Net Annual Savings	% of Energy Sales	Net Annual Savings	% of Energy Sales
2016	54,596,302	591,015	1.1%	801,779	1.5%
2017	54,309,422	608,070	1.1%	934,676	1.7%
2018	51,467,402	816,508	1.6%	887,162	1.7%
2019	49,620,203	781,394	1.6%	844,287	1.7%



#### Note:

Actual Annual Savings Portfolio Spending & Total Revenue reflect Year-to-date values

**SCPSC** 

## **Portfolio Summary: DEP**

### **2019 Portfolio Summary**

Demand (MW) Actual	Energy (MWh)	Actual Expenditures	Performance Incentives	Total Annual Energy Sales	% of Energy Sales	UCT Score	TRC Score
133.57	366,018	\$87,400,540	\$15,017,088	28,182,233	1%	2.40	2.32

#### **Company Statistics**

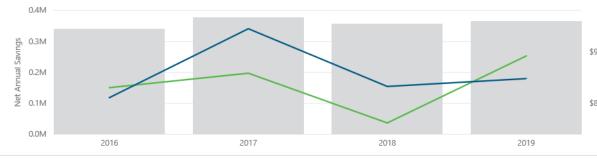
#### Prior Year & YTD Revenues & Expenditures

		Budge	t	Actual		
Program Year	Total Revenue (\$MM)	Portfolio Budget	% of Revenue	Portfolio Spending	% of Revenue	
2016	\$5,277	\$86,525,157	1.6%	\$85,558,746	1.6%	
2017	\$5,129	\$87,923,780	1.7%	\$92,232,546	1.8%	
2018	\$5,699	\$83,107,282	1.5%	\$86,641,573	1.5%	
2019	\$5,957	\$89,592,768	1.5%	\$87,400,540	1.5%	

#### Energy

		Budget		Acti	ual
Program Year	Prior Yr Annual Energy Sales (Net of Opt-Out)	Net Annual Savings	% of Energy Sales	Net Annual Savings	% of Energy Sales
2016	31,454,848	351,831	1.1%	339,918	1.1%
2017	30,908,887	350,851	1.1%	378,262	1.2%
2018	29,943,275	324,305	1.1%	356,587	1.2%
2019	28,182,233	341,047	1.2%	366,018	1.3%





#### Note:

Actual Annual Savings Portfolio Spending & Total Revenue reflect Year-to-date values

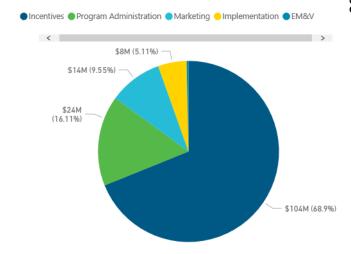
## **DEC Portfolio Support**

#### 2019 EE Portfolio Expenditures by Program

Program	Program Type	Actual Costs	Budget Costs	%	
Energy Assessments	Residential-EE	\$3,186,888	\$2,987,118	107%	
Energy Efficiency Education	Residential-EE	\$1,684,083	\$2,104,087	80%	
Energy Efficient Appliances and Devices	Residential-EE	\$41,380,987	\$21,726,700	190%	
HVAC Energy Efficiency	Residential-EE	\$7,400,669	\$4,802,289	154%	
Income Qualified Energy Efficiency and Weatherization Assistance	Residential-EE	\$7,342,133	\$7,905,880	93%	
Multi-Family Energy Efficiency	Residential-EE	\$3,680,155	\$3,382,816	109%	
My Home Energy Report	Residential-EE	\$10,555,159	\$13,406,971	79%	
PowerManager	Residential-DSM	\$13,383,639	\$14,055,575	95%	
Non Residential Energy Efficient ITEE	Non-Residential-EE	\$44,323	\$749,325	6%	
Non Residential Energy Efficient Process Equipment Products	Non-Residential-EE	\$119,811	\$240,281	50%	
Non Residential Energy Efficient Pumps and Drives Products	Non-Residential-EE	\$189,123	\$1,165,434	16%	
Non Residential Smart Saver Custom	Non-Residential-EE	\$8,871,440	\$10,095,189	88%	
Non Residential Smart Saver Custom Technical Assessments	Non-Residential-EE	\$295,925	\$1,618,240	18%	
Non Residential Smart Saver Energy Efficient Food Service Products	Non-Residential-EE	\$339,904	\$2,010,534	17%	
Non Residential Smart Saver Energy Efficient HVAC Products	Non-Residential-EE	\$2,207,760	\$5,762,803	38%	
Non Residential Smart Saver Energy Efficient Lighting Products	Non-Residential-EE	\$20,829,118	\$17,828,618	117%	
Non Residential Smart Saver Performance Incentive	Non-Residential-EE	\$784,949	\$3,162,160	25%	
Small Business Energy Saver	Non-Residential-EE	\$11,418,264	\$14,602,066	78%	
EnergyWise for Business	Non-Residential-DSM	\$3,686,451	\$3,967,504	93%	
PowerShare	Non-Residential-DSM	\$13,019,606	\$13,263,911	98%	
Total		\$150,420,388	\$144,837,499	104%	

#### 2019 EE Portfolio Expenditure Summary by Cost Type

Total	100.00%	\$144,837,499	\$150,420,388	100.00%
Program Administration	18.94%	\$27,435,216	\$24,234,855	16.11%
Marketing	13.46%	\$19,496,106	\$14,361,529	9.55%
Incentives	61.33%	\$88,824,951	\$103,632,631	68.90%
Implementation	5.60%	\$8,104,227	\$7,679,277	5.11%
EM&V	0.67%	\$977,000	\$512,097	0.34%
Cost Category	% of Total	Budget Costs	Actual Costs	% of Total



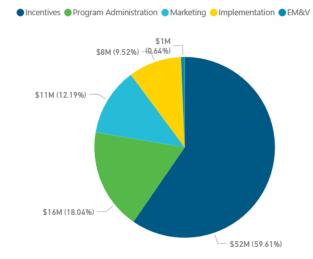
# **DEP Portfolio Support**

#### 2019 EE Portfolio Expenditures by Program

Total		\$87,400,540	\$89,592,768	98%
EnergyWise for Business	Non-Residential-DSM	\$2,382,632	\$2,476,808	96%
Commercial, Industrial, & Governmental Demand Response	Non-Residential-DSM	\$1,647,027	\$2,694,260	61%
Small Business Energy Saver	Non-Residential-EE	\$7,346,426	\$9,294,966	79%
Non-Residential Smart\$aver Prescriptive	Non-Residential-EE	\$7,948,870	\$11,408,405	70%
Non-Residential Smart\$aver Performance	Non-Residential-EE	\$269,460	\$845,910	32%
Non-Residential Smart\$aver Custom	Non-Residential-EE	\$2,769,305	\$2,719,960	102%
EnergyWise	Residential-DSM	\$14,537,464	\$14,086,536	103%
Residential Smart\$aver	Residential-EE	\$6,397,527	\$3,985,069	161%
Residential New Construction	Residential-EE	\$15,080,405	\$12,691,351	119%
Residential Energy Assessments	Residential-EE	\$2,109,106	\$1,138,481	185%
Neighborhood Energy Saver	Residential-EE	\$1,667,723	\$2,028,200	82%
My Home Energy Report	Residential-EE	\$6,746,551	\$7,994,059	84%
Multi-Family	Residential-EE	\$2,151,724	\$2,738,339	79%
Low Income Weatherization Pilot	Residential-EE	\$27,295	\$0	0%
Energy Efficient Lighting	Residential-EE	\$14,346,463	\$13,209,118	109%
Energy Education Program for Schools	Residential-EE	\$745,829	\$753,793	99%
Appliances and Devices	Residential-EE	\$1,226,733	\$1,527,511	80%
Program	Program Type	Actual Costs	Budget Costs	%

#### 2019 EE Portfolio Expenditure Summary by Cost Type

Total	100.00%	\$89,592,768	\$87,400,540	100.00%
Program Administration	21.64%	\$19,387,187	\$15,764,554	18.04%
Marketing	13.34%	\$11,953,585	\$10,652,278	12.19%
Incentives	56.31%	\$50,453,958	\$52,098,767	59.61%
Implementation	7.34%	\$6,573,038	\$8,324,514	9.52%
EM&V	1.37%	\$1,225,000	\$560,428	0.64%
Cost Category	% of Total	Budget Costs	Actual Costs	% of Total







# **Income-Qualified Programs**

### **Neighborhood Energy Savers**

Income Qualified Energy Efficiency and Weatherization Assistance<sup>1</sup>

	Vintage 2019	Vintage 2019	% of
\$ in millions, rounded	As Filed	YTD December 31, 2019	Target
<b>NPV of Avoided Cost</b>	\$1.5	\$3.6	239%
Program Cost	\$7.9	\$7.3	93%
MW	0.6	1.1	173%
MWH	4,043.4	9,029.8	223%
Units	10,114	10,814	107%

1) Values are reflected at the system level.

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	2,135	3,829	1,694
Savings (MW)	0.33	0.52	0.19
Participants		5,825	
2019 Program Expenses		\$1,695,018	

### **Neighborhood Energy Savers**

- Served the communities in the following towns:
  - Bessemer City, Burlington, Charlotte, Durham, Greensboro, Hickory, Kannapolis, Winston-Salem, Spring Lake, Dunn, Rockingham
  - Greenville, Kershaw, Spartanburg, Manning, Florence

NES	Goal	Actual
DEC NC	6,516	6,625
DEC SC	2,410	3,193
DEP NC	3,825	2,722
DEP SC	675	1,795

### Weatherization and Equipment Replacement, Refrigerator Replacement

- working with the NC and SC Weatherization Agencies to deliver this program
- 736 homes received weatherization in conjunction with the DOE weatherization program, with 292 refrigerators replaced, 69 Tier 1 services provided and 667 Tier 2 services provided

Weatherization	Goal		Actual					
DEC NC	880		736					
DEC SC	60		16					
Refrigerator Replacement								
DEC NC	150		222					
DEC SC	15		70					

Combined			
DEC Wx - Project Type	Projects	То	tal Paid
Refrigerator Replacement	190	\$	158,940.83
Weatherization Tier 1	70	\$	39,428.03
Weatherization Tier 2	353	\$	910,446.96
HVAC Replacment	238	\$1	1,404,793.47
Total	851	\$2	2,513,609.29

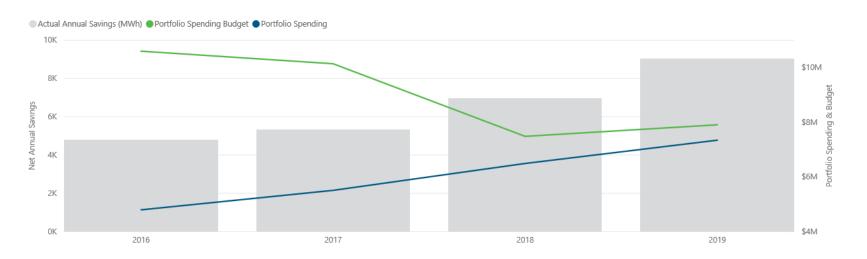
NC			
DEC Wx - Project Type	Projects	То	tal Paid
Refrigerator Replacement	120	\$	104,706.00
Weatherization Tier 1	70	\$	39,428.03
Weatherization Tier 2	353	\$	910,446.96
HVAC Replacment	222	\$1	1,316,592.01
Total	765	\$2	2,371,173.00

sc			
DEC Wx - Project Type	Projects	То	tal Paid
Refrigerator Replacement	70	\$	54,234.83
Weatherization Tier 1			
Weatherization Tier 2			
HVAC Replacment	16	\$	88,201.46
Total	86	\$	142,436.29

### **DEC NES and Weatherization**

#### Income Qualified Energy Efficiency and Weatherization Assistance Program Budget, Savings & Number of Measures

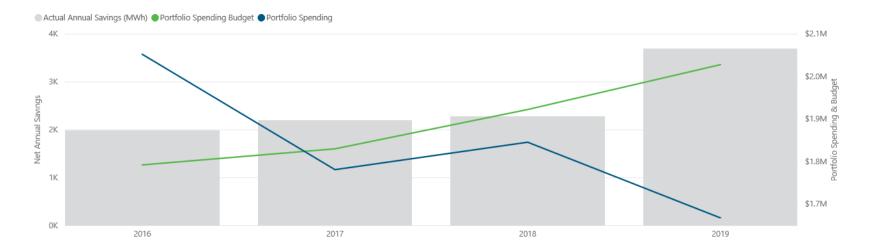
	Exper	nditures		Energy Savings			Demand Savings			Participants		
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget •	Actual	%
2017	\$10,141,446	\$5,505,992	54%	5,310	5,342	101%	1.05	0.77	74%	10,538	11,726	111%
2019	\$7,905,880	\$7,342,133	93%	4,043	9,030	223%	0.64	1.11	173%	10,114	10,814	107%
2018	\$7,483,328	\$6,490,735	87%	5,287	6,973	132%	0.82	0.90	110%	10,426	10,681	102%
2016	\$10,601,322	\$4,792,436	45%	5,010	4,801	96%	1.00	0.65	65%	10,421	9,339	90%



### **DEP NES**

#### Neighborhood Energy Saver Program Budget, Savings & Number of Measures

	Exper	nditures		Energy Savings			Demand Savings			Participants		
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget 🔻	Actual	%
2018	\$1,922,686	\$1,845,739	96%	2,033	2,279	112%	0.31	0.35	112%	4,503	5,047	112%
2017	\$1,830,237	\$1,781,211	97%	1,735	2,200	127%	0.30	0.34	110%	4,500	4,873	108%
2019	\$2,028,200	\$1,667,723	82%	2,135	3,699	173%	0.33	0.49	151%	4,729	4,517	96%
2016	\$1,792,345	\$2,052,535	115%	1,735	1,992	115%	0.30	0.30	100%	4,500	4,412	98%



SCPSC

# Programs that are free to Participants

### **Multi-Family Energy Efficiency**

Multi-Family Energy Efficiency<sup>1</sup>

	Vintage 2019	% of	
\$ in millions, rounded	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$9.6	\$11.9	124%
Program Cost	\$3.4	\$3.7	109%
MW	2.0	2.6	132%
MWH	19,846.4	24,086.2	121%
Units	342,660	493,307	144%

1) Values are reflected at the system level.

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	15,206	14,966	-240
Savings (MW)	2.13	2.05	-0.09
Participants		389,131	
2019 Program Expenses		\$3,081,002	

SCPSC

### **Multi-Family Energy Efficiency**

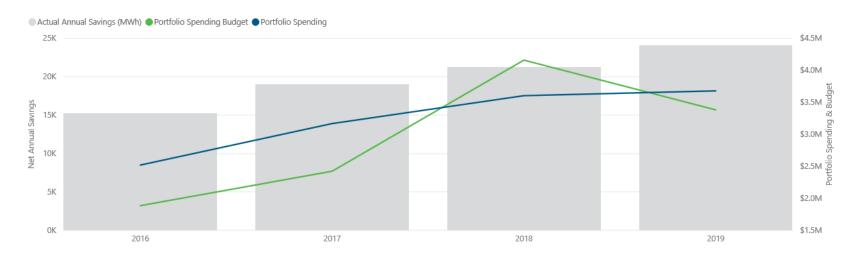
- Total 112 properties in DEP (15, 763 units) and 293 in DEC (46,422 units)
- 71+% lighting measures, remaining is water measures
- Marketing:
  - Outbound calls and on-site visits to property managers
  - Apartment association memberships, trade shows
  - Public website
  - Brochures
  - Tenant materials

Multifamily							
Jurisdiction	Properties	Units					
DEC - NC	161	26,087					
DEC - SC	20	4,572					
DEP - NC	101	15,002					
DEP - SC	11	761					
Grand Total	293	46,422					

# **DEC Multifamily**

#### Multi-Family Energy Efficiency Program Budget, Savings & Number of Measures

	Ехре	nditures		Ene	rgy Savings		Den	nand Savings		Pa	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget •	Actual	%
2019	\$3,382,816	\$3,680,155	109%	19,846	24,086	121%	2.00	2.65	132%	342,660	493,307	144%
2018	\$4,161,326	\$3,604,921	87%	22,582	21,289	94%	2.20	2.30	105%	370,882	430,475	116%
2017	\$2,422,689	\$3,168,422	131%	12,688	19,056	150%	1.19	1.92	161%	186,948	356,003	190%
2016	\$1,883,584	\$2,518,988	134%	12,320	15,235	124%	1.02	1.57	154%	151,004	269,671	179%

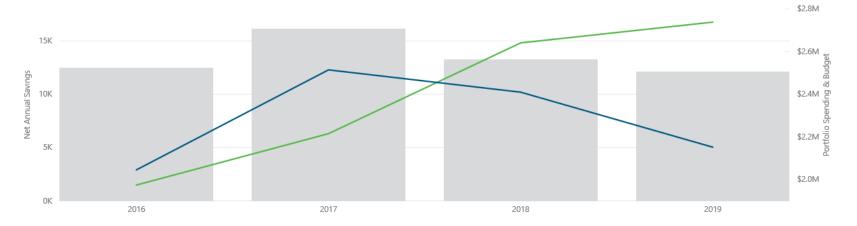


# **DEP Multifamily**

#### Multi-Family Program Budget, Savings & Number of Measures

	Expe	nditures		Enei	rgy Savings		Den	nand Savings		Pa	rticipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget 🔻	Actual	%
2017	\$2,215,099	\$2,514,413	114%	10,444	16,151	155%	1.02	2.05	200%	201,072	297,837	148%
2018	\$2,640,920	\$2,409,743	91%	13,579	13,292	98%	1.84	1.74	95%	264,177	288,093	109%
2019	\$2,738,339	\$2,151,724	79%	15,206	12,107	80%	2.13	1.62	76%	291,444	285,365	98%
2016	\$1,974,027	\$2,045,220	104%	10,993	12,462	113%	1.08	1.48	137%	211,656	240,436	114%





### **My Home Energy Reports (MyHER)**

My Home Energy Report<sup>1</sup>

	Vintage 2019	Vintage 2019	% of
\$ in millions, rounded	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$20.9	\$23.4	112%
Program Cost	\$13.4	\$10.6	79%
MW <sup>2</sup>	79.4	91.4	115%
MWH <sup>2</sup>	312,934.1	328,439.1	105%
Units <sup>3</sup>	1,364,000	1,339,152	98%

- 1) Values are reflected at the system level.
- 2) Values represent the annual MW and MWH savings associated with the December 2019 month end participation.
- 3) At month-end December 2019, single-family participation was 1,183,442, while multifamily participation was 155,710.

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	119,273	154,602	35,329
Savings (MW)	20.01	54.25	34.24
Participants		769,490	
2019 Program Expenses		\$6,746,551	

# **My Home Energy Reports (MyHER)**

Total DEC			
NC		SC	
Single Family	68%	Single Family	21%
Paper	63%	Paper	19%
Online	5%	Online	2%
Multifamily	9%	Multifamily	2%
Paper	9%	Paper	2%
Online	0.7%	Online	0.2%

Total DEP			
NC		SC	
Single Family	82%	Single Family	9%
Paper	76%	Paper	9%
Online	6%	Online	0.6%
Multifamily	8%	Multifamily	1%
Paper	7%	Paper	1%
Online	0.4%	Online	0.1%

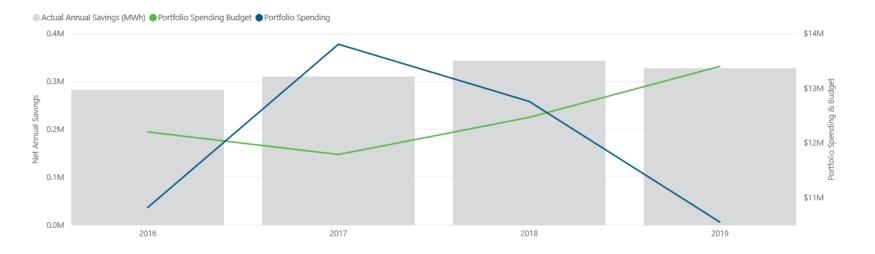
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**SCPSC** 

# **DEC My Home Energy Reports**

#### My Home Energy Report Program Budget, Savings & Number of Measures

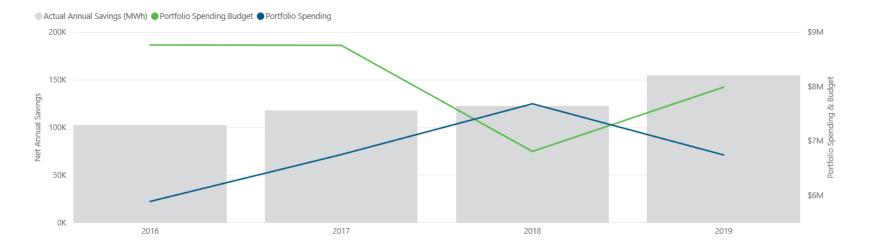
	Expe	nditures		Ener	gy Savings		Den	nand Savings		Pa	rticipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%
2018	\$12,472,487	\$12,765,286	102%	304,387	344,760	113%	77.28	95.89	124%	1,354,138	1,432,263	106%
2017	\$11,792,498	\$13,812,250	117%	211,048	311,369	148%	56.98	79.07	139%	1,050,000	1,394,693	133%
2019	\$13,406,971	\$10,555,159	79%	312,934	328,439	105%	79.36	91.39	115%	1,364,000	1,339,152	98%
2016	\$12,206,008	\$10,822,444	89%	204,880	283,570	138%	55.32	71.81	130%	1,050,000	1,202,664	115%



# **DEP My Home Energy Reports**

#### My Home Energy Report Program Budget, Savings & Number of Measures

	Exper	nditures		Ene	rgy Savings		Den	nand Savings		Pa	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget <b>▼</b>	Actual	%
2018	\$6,810,235	\$7,687,891	113%	132,895	122,685	92%	36.11	20.78	58%	673,400	9,578,379	1422%
2017	\$8,763,955	\$6,753,153	77%	133,917	117,852	88%	36.39	19.96	55%	682,300	8,775,108	1286%
2016	\$8,770,681	\$5,890,093	67%	133,917	102,921	77%	36.39	16.91	46%	682,300	7,909,262	1159%
2019	\$7,994,059	\$6,746,551	84%	119,273	154,602	130%	20.01	54.25	271%	797,000	769,490	97%



# **EE** in Education

Energy Efficiency Education <sup>1</sup>			
	Vintage 2019	Vintage 2019	% of
\$ in millions, rounded	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$2.6	\$2.5	98%
Program Cost	\$2.1	\$1.7	80%
MW	1.3	0.8	63%
MWH	5,701.5	6,713.8	118%
Units	26,705	24,785	93%

<sup>1)</sup> Values are reflected at the system level.

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	2,315	3,284	969
Savings (MW)	0.98	0.39	-0.59
Participants		9,887	
2019 Program Expenses		\$745,829	

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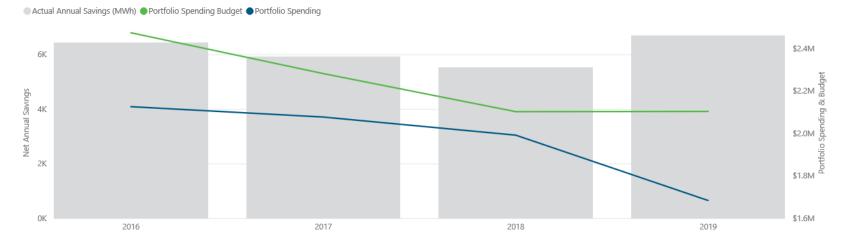
# **EE** in Education

DEP	,	DEC	
NC - PMID 9054		NC - PMID 3627	
Number of Schools	193	Number of Schools	455
Number of Performances	316	Number of Performances	727
Number of Students	69,202	Number of Students	155,286
Number of Kits	8,661	Number of Kits	19,855
SC - PMID 9055		SC - PMID 3629	
Number of Schools	54	Number of Schools	134
Number of Performances	87	Number of Performances	192
Number of Students	17,677	Number of Students	42,992
Number of Kits	1,226	Number of Kits	4,930
Total		Total	
Number of Schools	247	Number of Schools	589
Number of Performances	403	Number of Performances	919
Number of Students	86,879	Number of Students	198,278
Number of Kits	9,887	Number of Kits	24,785

### **DEC EE in Education**

#### Energy Efficiency Education Program Budget, Savings & Number of Measures

	Exper	nditures		Ener	gy Savings		Der	nand Savings		Pa	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget •	Actual	%
2016	\$2,474,928	\$2,126,509	86%	6,580	6,441	98%	0.69	1.51	219%	26,250	30,170	115%
2017	\$2,282,458	\$2,077,611	91%	5,604	5,932	106%	1.32	1.39	106%	26,250	27,785	106%
2019	\$2,104,087	\$1,684,083	80%	5,702	6,714	118%	1.34	0.84	63%	26,705	24,785	93%
2018	\$2,103,036	\$1,992,260	95%	5,604	5,531	99%	1.32	0.97	73%	26,250	22,901	87%

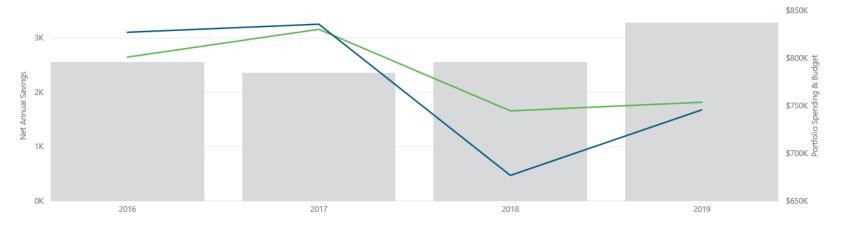


### **DEP EE in Education**

#### Energy Education Program for Schools Program Budget, Savings & Number of Measures

	Expe	Expenditures			Energy Savings Demand Savings			P	articipants 🖈	7 E			
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget -	Actual	%	
2019	\$753,793	\$745,829	99%	2,315	3,284	142%	0.98	0.39	40%	8,952	9,887	110%	
2016	\$801,351	\$827,497	103%	1,998	2,554	128%	0.20	1.08	546%	8,800	9,877	112%	
2017	\$830,606	\$835,991	101%	1,998	2,354	118%	0.20	1.00	503%	8,800	9,104	103%	
2018	\$744,749	\$676,815	91%	1,997	2,563	128%	0.20	0.77	387%	8,798	9,013	102%	





# **Home Energy House Call**

Energy Assessments<sup>1</sup>

	Vintage 2019	Vintage 2019 YTD December 31,	% of
\$ in millions, rounded	As Filed	2019	Target
NPV of Avoided Cost	\$4.2	\$4.4	105%
Program Cost	\$3.0	\$3.2	107%
MW	1.0	0.9	91%
MWH	6,542.9	7,886.9	121%
Units	34,304	61,692	180%

- 1) Values are reflected at the system level.
- 2) Units represent number of measures, and do include additional LEDs.

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	2,565	7,834	5,269
Savings (MW)	0.43	0.94	0.51
Participants		41,226	
2019 Program Expenses		\$2,109,106	

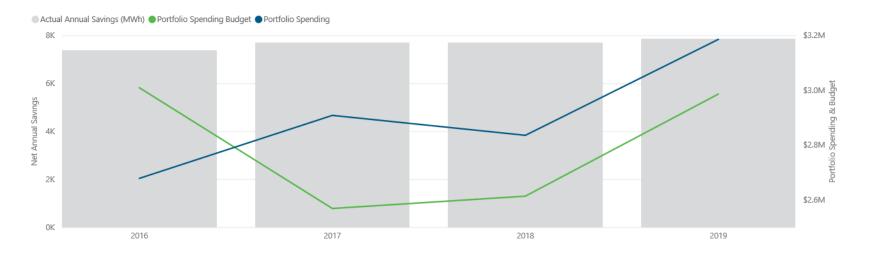
# **Home Energy House Call**

Measure	State	NC	SC
Audit	DEC	7,529	2,817
Additional Bulb		31,016	12,119
Bathroom Aerator		1,663	639
Pipewrap		4,887	1,062
Total		45,095	16,637
Audit	DEP	5,948	779
Additional Bulb		25,352	3,181
Bathroom Aerator		1,879	168
Pipewrap		3,213	706
Total		36,392	4,834

# **DEC Home Energy House Call**

#### **Energy Assessments Program Budget, Savings & Number of Measures**

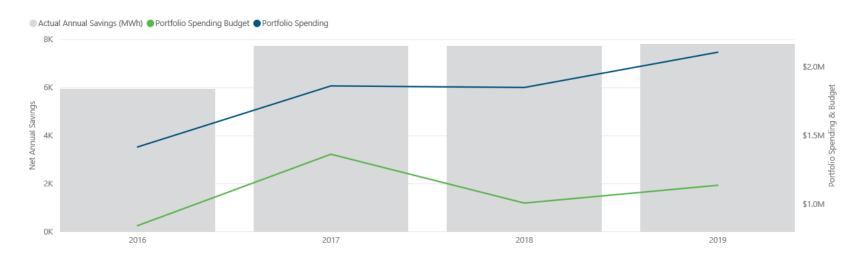
	Exper	nditures		Ener	gy Savings		Den	nand Savings		Pa	rticipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget 🔻	Actual	%
2019	\$2,987,118	\$3,186,888	107%	6,543	7,887	121%	1.04	0.95	91%	34,304	61,692	180%
2018	\$2,613,893	\$2,836,229	109%	7,436	7,717	104%	1.14	0.93	81%	8,440	55,978	663%
2017	\$2,568,858	\$2,909,098	113%	7,923	7,721	97%	0.98	1.04	106%	8,038	52,546	654%
2016	\$3,010,149	\$2,678,893	89%	7,547	7,389	98%	0.93	1.07	114%	7,656	28,853	377%



### **DEP Home Energy House Call**

#### Residential Energy Assessments Program Budget, Savings & Number of Measures

	Exper	nditures		Ene	rgy Savings		Der	mand Savings		Pa	rticipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget •	Actual	%
2019	\$1,138,481	\$2,109,106	185%	2,565	7,834	305%	0.43	0.94	220%	13,672	41,226	302%
2017	\$1,365,004	\$1,863,486	137%	3,132	7,734	247%	0.52	0.93	178%	25,375	38,090	150%
2018	\$1,008,625	\$1,851,965	184%	2,720	7,752	285%	0.45	0.94	206%	22,036	37,923	172%
2016	\$843,942	\$1,417,924	168%	1,282	5,943	464%	0.21	0.72	334%	10,385	27,614	266%



2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	30,940	16,709	-14,231
Savings (MW)	8.91	5.05	-3.87
Participants		253,098	
2019 Program Expenses		\$1,226,733	

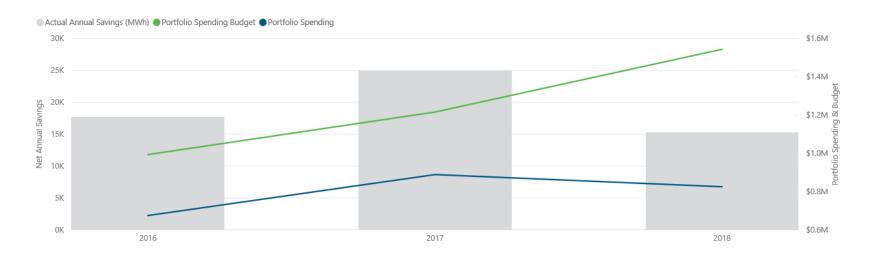
Save Energy and Water							
Jurisdiction	Kits						
DEC - NC	31,961						
DEC - SC	11,075						
DEP - NC	21,929						
DEP - SC	3,814						
Grand Total	68,779						

5:35 PM

### **DEP Save Energy and Water Kits**

#### Save Energy and Water Kit Program Budget, Savings & Number of Measures

	Exper	nditures		Energy Savings		Demand Savings			Participants			
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget <b>▼</b>	Actual	%
2017	\$1,216,177	\$888,869	73%	15,667	25,021	160%	1.25	8.38	668%	316,437	463,854	147%
2016	\$993,420	\$674,538	68%	12,758	17,672	139%	1.02	5.91	579%	257,688	325,146	126%
2018	\$1,544,762	\$825,279	53%	21,484	15,252	71%	1.72	5.06	294%	432,591	276,327	64%



### Free LEDs\*\*

- Offered in DEC as part of EE Appliances and Devices Program
- 451,000 orders for 5.6 million bulbs in 2019
- The Free LED program is scheduled to discontinue in Duke Energy Carolinas in 2020

Free LEDs (DEC Only)								
State	Participation (Bulbs)	Split						
NC	4,440,368	77%						
SC	1,361,532	23%						
Total	5,801,900	100%						

SCPSC

# **Programs with Participant Costs**

### **Energy Efficient Appliances and Devices**

	Vintage 2019	Vintage 2019	% of
<u>\$ in millions, rounded</u>	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$52.1	\$102.1	196%
Program Cost	\$21.7	\$41.4	190%
MW	16.7	31.8	190%
MWH	97,320.5	187,351.7	193%
Units	3,997,670	9,893,466	247%

<sup>1)</sup> Values are reflected at the system level.

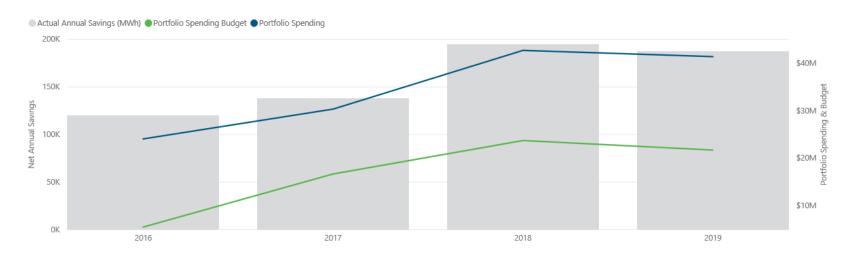
DEC NC	76%	DEP NC	93%
DEC SC	24%	DEP SC	7%

- For DEC, includes Free LEDs, SEWK, Retail Lighting, Specialty Lighting and Online Store
- 43,578 orders thru OLS for 331,095 bulbs; 11,724 smart thermostats; 3,553 smart strips; and 220 water measures, 639 LED fixtures
- Over 99 percent of customers accessed OLS via the public website, while 1 percent accessed OLS by logging into their OLS account.

# **DEC Energy Efficient Appliances and Devices**

#### Energy Efficient Appliances and Devices Program Budget, Savings & Number of Measures

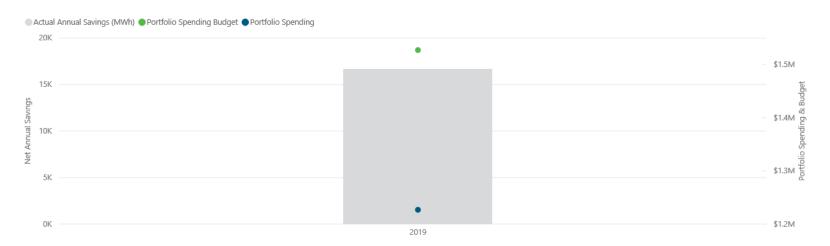
	Exper	nditures		Energy Savings		Demand Savings			Participants			
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget •	Actual	%
2018	\$23,729,947	\$42,687,244	180%	97,729	195,213	200%	11.73	32.80	280%	3,533,486	10,242,946	290%
2019	\$21,726,700	\$41,380,987	190%	97,321	187,352	193%	16.73	31.80	190%	3,997,670	9,893,466	247%
2017	\$16,694,730	\$30,340,728	182%	63,591	137,960	217%	8.14	24.61	302%	2,544,764	6,819,189	268%
2016	\$5,528,158	\$24,069,774	435%	36,348	120,226	331%	4.06	14.52	357%	955,750	3,868,812	405%



# **DEP Appliances and Devices**

#### Appliances and Devices Program Budget, Savings & Number of Measures

	Exper	nditures		Energy Savings		Demand Savings			Participants			
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%
2019	\$1,527,511	\$1,226,733	80%	30,940	16,709	54%	8.91	5.05	57%	452,400	253,098	56%



# **Retail Lighting**

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	31,505	37,390	5,886
Savings (MW)	5.81	6.16	0.35
Participants		2,650,367	
2019 Program Expenses		\$13,417,185	

- DEC Retail Lighting is included in EE Appliances and Devices Program.
- DEP had 17 lighting retail channels actively participating --the top 5 retail channels account for 78% of the sales
- DEC had 8 lighting retail channels actively participating --the top 3 retail channels account for 70% of the sales

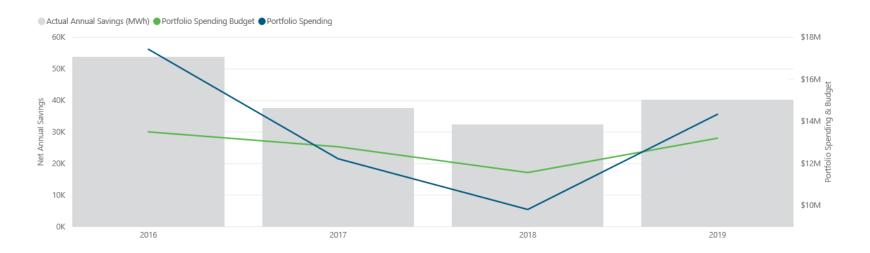
Retail Lighting Program (DEC)					
State	Participation (Bulbs) Split				
DEC (NC)	2,683,079	77%			
DEC (SC)	793,363	23%			
Total	3,476,442	100%			

Retail Lighting Program (DEP)						
State	Participation (Bulbs)	Split				
DEP (NC)	2,281,045	86%				
DEP (SC)	369,322	14%				
Total	2,650,367	100%				

# **DEP Retail Lighting**

#### **Energy Efficient Lighting Program Budget, Savings & Number of Measures**

	Exper	nditures		Ene	rgy Savings		Den	nand Savings		Pa	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget 🔻	Actual	%
2016	\$13,508,880	\$17,441,878	129%	68,441	53,830	79%	11.23	8.82	79%	2,501,909	3,244,448	130%
2019	\$13,209,118	\$14,346,463	109%	31,505	40,249	128%	5.81	6.59	113%	1,945,783	2,754,133	142%
2017	\$12,799,466	\$12,229,222	96%	63,371	37,551	59%	10.40	6.82	66%	2,251,730	2,520,381	112%
2018	\$11,573,219	\$9,815,496	85%	29,251	32,403	111%	4.92	5.98	121%	1,868,674	2,147,254	115%



# **Smart \$aver Residential**

Residential - Smart \$aver Energy Efficiency Program<sup>1</sup>

	Vintage 2019	Vintage 2019	% of
\$ in millions, rounded	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$4.5	\$7.1	157%
Program Cost	\$4.8	\$7.4	154%
MW	1.3	2.0	157%
MWH	5,130.7	7,329.1	143%
Units	9,630	25,852	268%

<sup>1)</sup> Values are reflected at the system level.

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	4,184	6,756	2,572
Savings (MW)	1.11	1.86	0.75
Participants		21,965	
2019 Program Expenses		\$6,397,527	

### **Smart \$aver Residential**

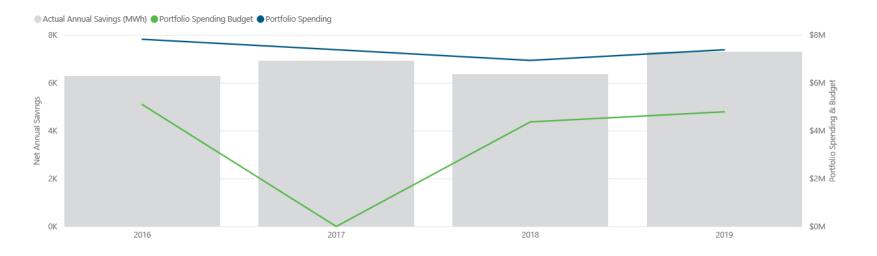
The Referral Channel generated over 15,668 customer referrals during 2019 with a 95% customer satisfaction rating

ı	NC	SC		
DEC	DEP	DEC	DEP	
22,645	21,209	3,979	790	
46%	44%	8%	2%	
	al NC ,854		II SC 769	

## **DEC Smart \$aver HVAC**

#### **HVAC Energy Efficiency Program Budget, Savings & Number of Measures**

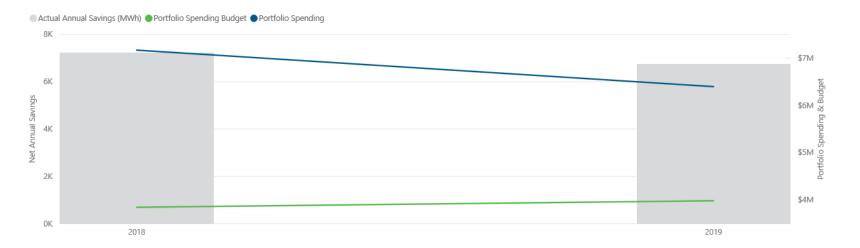
	Exper	nditures		Ener	gy Savings		Der	mand Savings		Pa	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget <b>▼</b>	Actual	%
2017	\$0	\$7,403,327	0%	0	6,955	0%	0.00	1.85	0%	0	27,311	0%
2019	\$4,802,289	\$7,400,669	154%	5,131	7,329	143%	1.29	2.03	157%	9,630	25,852	268%
2018	\$4,379,521	\$6,955,146	159%	5,360	6,367	119%	1.58	1.64	104%	9,480	25,293	267%
2016	\$5,107,181	\$7,839,566	154%	3,365	6,295	187%	1.53	2.46	161%	9,986	19,475	195%



## **DEP Smart \$aver**

#### Residential Smart\$aver Program Budget, Savings & Number of Measures

	Exper	nditures		Energy Savings		Demand Savings			Participants			
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget <b>▼</b>	Actual	%
2018	\$3,847,421	\$7,168,833	186%	3,134	7,229	231%	1.14	1.80	158%	9,260	24,562	265%
2019	\$3,985,069	\$6,397,527	161%	4,184	6,756	161%	1.11	1.86	168%	8,147	21,965	270%



## **Residential New Construction**

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation
Savings (MWH)	16,447	16,337	-109
Savings (MW)	7.10	4.66	-2.44
Participants		13,165,685	
2019 Program Expenses		\$15,080,405	

Total, 580 builders and 28 approved raters registered

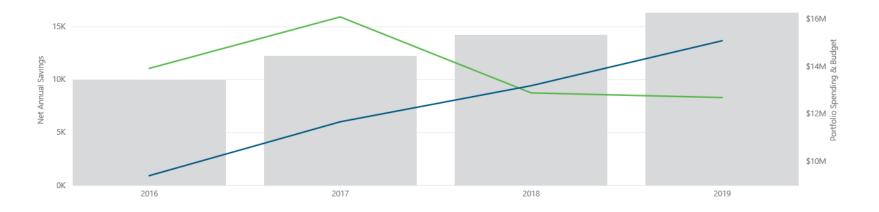
Measure Qty			
	DEP (NC)	DEP (SC)	Grand Total
2019	5941	2	5943

### **DEP Residential New Construction**

#### Residential New Construction Program Budget, Savings & Number of Measures

	Exper	nditures		Ene	rgy Savings		Den	nand Savings		P:	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget 🔻	Actual	%
2019	\$12,691,351	\$15,080,405	119%	16,447	16,337	99%	7.10	4.66	66%	11,891,674	13,165,685	111%
2018	\$12,886,524	\$13,189,949	102%	16,048	14,263	89%	6.95	5.44	78%	11,341,393	11,275,657	99%
2017	\$16,082,178	\$11,671,724	73%	10,075	12,246	122%	4.36	5.27	121%	4,750	9,732,077	204886 %
2016	\$13,917,269	\$9,405,615	68%	8,955	9,955	111%	3.87	4.36	113%	4,500	5,700,623	126681

■ Actual Annual Savings (MWh) ■ Portfolio Spending Budget ■ Portfolio Spending



## **Demand Response**

## **Energy Wise Home**

2019 YTD Results	Annual Forecast	Actual at 12/31/2019	Variation		
Savings (MWH)	N/A	N/A	N/A		
Savings (MW)	418.15	422.12	3.97		
Participants		422.12			
2019 Program Expenses		\$14,607,732			

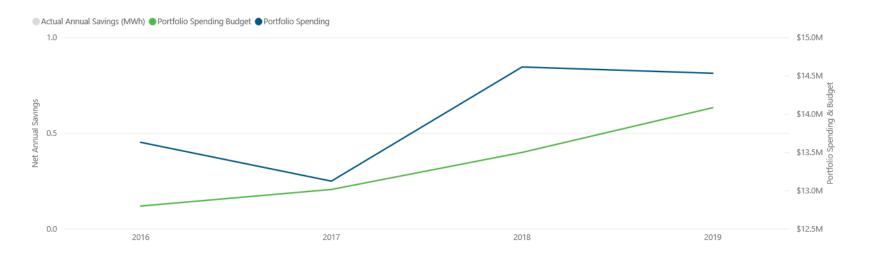
MW Savings at the meter include Summer MW for AC participants and Winter MW for Heat Strip and Water Heater Participants

- 182,000 participants and full shed load impacts of 376 MW summer and
   14.5 MW winter at the meter
- Bring Your Own Thermostat Program launched in mid-December—
  - DEC ~3,700 Customers, 5,400 devices
  - DEP ~2,900 Customers, 4,300 devices

## **DEP EnergyWise Home**

#### **EnergyWise Program Budget, Savings & Number of Measures**

	Expe	nditures		Ene	ergy Savings		Der	nand Savings		F	Participants 📝	7 E
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%
2017	\$13,016,514	\$13,125,314	101%	0	0	0%	22.04	33.43	152%	11,066	20,506	185%
2016	\$12,799,495	\$13,633,666	107%	0	0	0%	22.81	34.06	149%	11,433	18,465	162%
2019	\$14,086,536	\$14,537,464	103%	0	0	0%	27.12	31.09	115%	14,820	15,978	108%
2018	\$13,501,070	\$14,619,512	108%	0	0	0%	29.08	29.48	101%	14,985	15,602	104%



## **Power Manager**

	rManag	- 1
Dawa	rManaa	o ri
rowe	Lividilds	er

	Vintage 2019	Vintage 2019	% of
\$ in millions, rounded	As Filed	YTD December 31, 2019	Target
NPV of Avoided Cost	\$60.8	\$69.8	115%
Program Cost	\$14.1	\$13.4	95%
MW <sup>2</sup>	534.4	568.2	106%
MWH	0.0	N/A	-
Units <sup>3</sup>	503,131	535,704	106%

#### **Notes on Tables:**

1) Values are reflected at the system level.

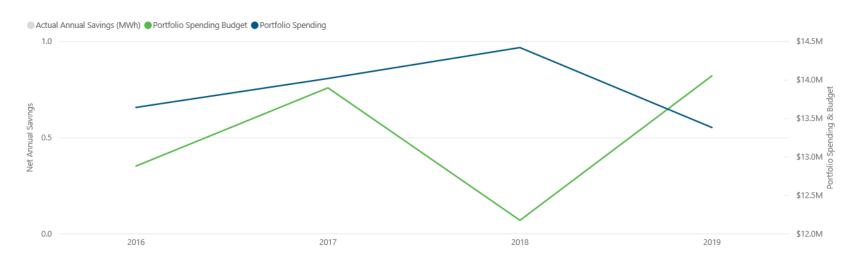
- At year-end, there were
  - 238,057 customers--NC: 180,513 and SC: 57,544
  - 286,473 air conditioners--NC: 216,490 and SC: 69,983
- net increases of 8,682 customers (+3.8%) and 10,794 air conditioners (+3.9%).

State & Type	
NC - CAN	216,490
SC - CAN	69,983
DEC - CAN	286,473
NC - Customers	180,513
SC - Customers	57,544
DEC - Customers	238,057

## **DEC Power Manager**

#### PowerManager Program Budget, Savings & Number of Measures

	Exper	nditures		Ene	ergy Savings		Den	nand Savings		Pa	articipants	
Program Year	Budget	Actual	%	Budget	Actual	%	Budget	Actual	%	Budget •	Actual	%
2019	\$14,055,575	\$13,383,639	95%	0	0	0%	534.42	568.24	106%	503,131	534,967	106%
2018	\$12,175,733	\$14,423,610	118%	0	0	0%	503.30	533.51	106%	473,837	502,271	106%
2017	\$13,899,748	\$14,021,500	101%	0	0	0%	502.97	501.12	100%	473,525	471,780	100%
2016	\$12,881,566	\$13,644,970	106%	0	0	0%	504.19	455.39	90%	474,675	428,731	90%



# EXHIBIT 7

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
Item No. 1-27
Page 1 of 2

#### **DUKE ENERGY PROGRESS, LLC**

#### **Request:**

Please describe steps DEP is taking, or planning to take, for 2020 and 2021 to maintain energy savings levels and respond to new customer needs resulting from the COVID-19 pandemic. Specifically, does DEP plan to:

- a. Increase investments in specific energy efficiency programs?
- b. Modify program measure offerings, incentive levels, or delivery channels to maintain overall savings levels?
- c. Modify program measure offerings, incentive levels, or delivery channels to address the needs of customers who have lost their jobs or accrued unpaid electric bills during the pandemic?
- d. Prioritize delivering energy efficiency services to customers who have accrued unpaid electric bills since the start of the pandemic?
- e. Prioritize delivering energy efficiency services to customers who have become unemployed since the start of the pandemic?
- f. Shift funding between program budgets?
- g. Seek NCUC authorization to take any steps DEP is not able to do without prior approval that will help the company maintain energy savings levels or better serve the needs of customers impacted by the COVID-19 pandemic?

#### **Response**:

a. DEP has been responsive to customer needs since the pandemic in a number of ways. It has suspended disconnections for nonpayment and suspended fees associated with late payments, reconnections, and insufficient check funds payments. Additionally the Duke Foundation has provided financial support for agencies that also provide customer assistance. With respect to energy efficiency programs, DEP is not planning on substantially increasing program investments, but will focus on prudent changes that allow the programs to safely meet customer demand for the various programs. Alternatives are being evaluated and investments may change in this fluid environment. DEP is sensitive to investments that may impact customer bills later and has a fiduciary responsibility to spend prudently even during a pandemic.

Exhibit 7

SACE et al.
Docket No. E-2, Sub 1252
2020 DSM-EE Rider
Data Request No. 1
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Page 2 of 2

- b. Currently, the Company is not planning on broad or significant changes to offerings, incentive levels or delivery channels solely based on the pandemic. Some programs may utilize virtual alternatives where the typical interaction isn't safe or practical. The K12 live performance is an example.
- c. The programs has not targeted specific COVID-19 impacted customer segments, but rather have prepared program personnel to urgently respond to customer needs regardless of how they have been impacted by the pandemic. Under normal conditions there are customers with urgent requests, and the programs adjust for those special needs. The pandemic may create more of those situations, but the intention is to meet the customer expectations, if possible.
- d. The programs have not specifically targeted those customers with offers, but we have modified program protocols to safely respond to customers that need assistance.
- e. We do not have a reliable source for identifying unemployed customers, and they have not been specifically targeted for program offers. The programs will respond quickly to customer inquiries or referrals especially when there are time sensitive needs.
- f. The Company has not shifted funding between programs, but has focused on establishing reliable protocols, trained staff and proper protective equipment, so most programs can be delivered as projected. As time progresses, DEP will evaluate options to best serve the needs/expectations of customers which could include movement of funds.
- g. At this point, DEP has not requested special authorization to take steps without specific NCUC approval. DEP continues to evaluate options that better serve customers, and some of those may require regulatory approval, but DEP isn't requesting an exception to the normal processes.

#### STATE OF SOUTH CAROLINA BEFORE THE PUBLIC SERVICE COMMISSION DOCKET NO. 2020-176-E

	)	
In the Matter of:	)	
Application of Duke Energy	)	
Progress, LLC for Approval of Rider	)	CERTIFICATE OF SERVICE
DSM/EE-12, Decreasing Residential	)	
Rates and Increasing Non-Residential	)	
Rate	)	

I certify that the following persons have been served with one (1) copy of the Comments by electronic mail and/or U.S. First Class Mail at the addresses set forth below:

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October 15, 2020

/s/ Emily E. Selden